UNDESCENDED TESTICLE COMPLICATING ACUTE APPENDICITIS*

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SUMMARY

1. Symptoms referable to compression of the spermatic cord and incarceration of right testicle, obscure the underlying pathologic changes occurring in the vermiform appendix.
2. Testicular underdevelopment and resulting subnormal cerebration.
3. Operative technique:
   (a) Pre-operative diagnosis: Incarceration of right testicle and possible perforative appendicitis.
   (b) Descent of right incarcerated testicle. Bassini closure.
   (c) Exploratory laparotomy: Intramuscular gridiron incision.
4. Operative findings:
   (a) Strangulation and incarceration of undescended right testicle and spermatic cord in inguinal canal.
   (b) Copious pus, free in peritoneal cavity. An adherent, sloughing, perforative, retrocecal appendix identified, left undisturbed and free drainage established.
5. Progress:
   (a) *Eventful* recovery from acute suppurative appendicitis following drainage of appendical focus.
   (b) Marked development following the operative descent of an incarcerated testicle in a backward boy, age twelve, who had a bilateral cryptorchism.

COMPLAINT

On April 23, 1923, I was summoned in a great hurry to attend a boy who was "having a cramp." Upon arrival, I was informed that I was too late; inasmuch as his "cramp" was over and he was "feeling better." In bed there lay a chap of about twelve years. His knees were flexed upon the abdomen, and he was bathed in cold perspiration. His temperature was 97, with a pulse rate of 100, which was regular and of good quality. The respiratory excursions were 25 per minute and costal.

INCARCERATION OF RIGHT TESTICLE

He is said to have had a similar, though less severe attack about six weeks ago, when his attendants concluded it to have been due to incarceration of his right testicle.

Upon inspection, the scrotal sac is seen to be empty and atrophied. Now, in this instance of bilateral cryptorchidism, we find the left testicle entirely absent from the scrotal sac and inguinal canal, while the right appears as a swelling, between the internal and external abdominal rings. There is a marked hyperemia about this region, and inflammatory changes are evident. He complains of an exquisite sensitiveness upon motion, and is most comfortable in the dorsal position with his knees somewhat flexed. Any attempt to extend, or even cause a greater degree of flexion of the thighs is accompanied by severe pain in the right inguinal region. Palpation reveals an almond-shaped mass, and on pressure gives the sensation of testicular pain. Above this, the abdomen is slightly distended. Percussion gives a tympanitic tone above, with dullness in the flank.

Percussion was executed under loud protest, on account of the attendant pain. There was present a marked degree of rigidity over the entire abdomen, which was most marked in the right lower quadrant, where it assumed the so-called board-like rigidity. There was also noted some tendnerness over the epigastric region, and pressure over the descending colon gave a painful sensation in the right iliac region. On palpation, the pain was most marked in the right lower quadrant, with the greatest sensitiveness, however, in the right inguinal region. Rectal examination was very painful and revealed the greatest sensitiveness in the right internal iliac fossa.

PHYSICAL EXAMINATION.

The head is of normal size and shape. The lower jaw is dwarfed, and the teeth crowded together in an irregular manner. The neck is smaller than usual, but there are no glandular enlargements and venous pulsations are not present. His lips are anemic, the tongue is coated, dry, and there is no unusual aroma from his breath. The palate, fauces, and pharynx are O. K., and the tonsile out. The pupils are regular in outline, but respond sluggishly to the light. The thorax is symmetrical, and the respiratory system appears normal. The heart is normal in outline as to size and shape, and the apex beat is in the normal location. The skin is moist and cool and has the appearance of clay, except in the right inguinal region, where it is hyperaemic, and presents evidence of inflammatory changes.

TESTICULAR AND MENTAL UNDERDEVELOPMENT

The patient appeared stupid, and his intellectual development was so retarded that, after a prolonged stay in the lowest grades, his parent was compelled to withdraw him from the public schools. This genital reflex, from the testicular underdevelopment, with the resulting endocrine hypofunction, manifests its morbidity in the distortion of the cerebral equasion. The increasing impotence, attendant upon such an unrelieved (though remedial) condition, need not here be dwelt upon. Or, to invoke the bon mot of the counsellor—*Res ipsa loquitur.*

FAMILY HISTORY

His mother died at the age of thirty-three, when he was seven years old. The cause of her death is unknown, except that she became paralytic nine days previously. His father is alive and well, and this child has one brother, age five, who enjoys a normal physical and mental development. His uncles and aunts are in good health, and his parents are not near nor distant relatives. The family history is stated to be negative to lues, cancer, diabetes, gout, rheumatism, and T. B. His blood pressure was 130 systolic and 80 mm. of hg. diastolic. His height was about 5 feet and weight 110 pounds, which is an increase over any previous weight. He has had

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the ordinary diseases of childhood, and an attack similar to his present complaint about six weeks ago.

LABORATORY FINDINGS

The important features in the laboratory examination are a leukopenia with a high polymorphonuclear count; and the present hematogenous albuminuria.

DIFFERENTIAL DIAGNOSIS

The questions to be determined are manifestly these: What relation, if any, have the present symptoms to the findings of the attendants upon his previous, similar attack? Do they differ, and if so, wherein? Let us analyze the salient points in the present history and physical findings. In the first instance, I can concur fully in the findings of the attendants upon his first attack, because of the obvious bilateral cryptorchidism and the retention of his right testis in the inguinal canal. This testicle has never been observed to have descended lower in its course at any previous time.

Further points in favor of such a diagnosis are:

1. The lack of a rise in temperature.
2. Normal pulse rate.
3. Absence of nausea, vomiting or diarrhoea.
4. Moreover, the history is negative as regards constipation, the great forerunner of appendicitis.

However, what I cannot pass over without concern is:

(a) The continued abdominal rigidity, after the storm had apparently subsided subjectively.

(b) The pain elicited on palpation of the right lower quadrant.

(c) The tympani of the uppermost portion of the abdomen when in the dorsal position, accompanied by dullness in the flank, which changes upon assuming an altered position.

(d) The extreme tenderness in the region of the appendix on rectal.

(e) The blood picture and urinary findings are significant of something other than an exacerbation due to his testicular anomaly.

All of which seem unwarranted by an attack of testicular colic, which is said to resemble in all respects his previous attack, except (it is explained) that he did not "get over" his last attack as soon as in this instance.

ATYPICAL APPENDICITIS TERMINATING IN PERFORATION

The case in point brings to my memory two atypical cases of appendicitis, one occurring in an infant that died from acute suppurative appendicitis, which, had it been given the benefit of early operative interference, may have had a chance for recovery. But the parents—in an attempt to avoid visitation by the physician—consulted him repeatedly over the telephone. The consequence was that the child was being treated for "having swallowed a pebble" during their stay at the beach, while the causative factor was not disclosed until after the appendix had ruptured, when I was called on the telephone at 5 o'clock in the morning and told that they were bringing a child who was found in a faint when the parent awoke.

Upon inspection, the child was found to be cold and clammy. Its respirations were stertorous, the abdomen greatly distended, and the pulse imperceptible. . . ."Doctor! *Do something*!"

Where are the faithful patients of not so long ago, when all Hippocratean disciples were able to acquire and practice the untrammeled healing art and whose only law was the welfare of the abiding patient? Oh, where, the revered masterful clinician, whose precept was nurtured in the clinical school; that superarrogate gentleman, whose kindly touch would tone the fading pulse. . . . He is not being emulated of late. Instead, he is "legally" superceded by the superarrogant hypocritical skylarks who would imitate the Deity, and with the support of the stolid politician are enabled to mulct the puny in body and soul, while the clinical picture darkens. Then, before the curtains fall, won't you please enter, Oh, Hippocrates, with your oldtime precept—"Medicenae Doctor."

The abdomen was opened a little after I had dismissed them. *"Belly full of pus!"* The poor thing expired for want of the timely recognition and appropriate treatment by the practitioner, who should have been afforded personal charge in the first instance rather than have been superseded by the tyro.

ON TWENTIETH CENTURY VAGARIES

The other case in point was that of a man, age sixty-five, who had an inguinal hernia that simulated the present case in some of its manifestations. When I arrived he was resting in comparative comfort after he had experienced the severest *"catch"* from his rupture, the history of which dates back to when he was in his twenties. Meanwhile, he had seen and followed such enlightening slogans as "Try Your Druggist First." "If You Seek Health for Your Wife, Swallow the All-Powerful Pynkyham Fore-Mule — Ah!" "It Gets You While You Sleep." Chorus: "Keep Smiling," for this is Barnum's Golden Age, *featuring* Epiddyism's, Heathen Mockery on Christianity and Science.

After his habitual use of somebody's "Natur's Rummydies," of which he had taken a double potion the day before, my man was now feeling easier. He had had a chill and collapsed, following which I arrived, finding him with a hernia that reduces easily through a rent in the abdominal wall, which was the obliterated inguinal canal. His abdomen was scaphoid, but extremely rigid and unyielding to the palpating hand. His temperature was 96.2, pulse rate 68 and intermittent. Upon rectal examination he was most tender in the region of the appendix.

Operation disclosed a ruptured gangrenous appendix, surrounded by a well-organized network of adhesions, with a small quantity of pus present upon opening the abdomen. Removal of the appendix and drainage was followed by prompt recovery.

OPERATIVE TREATMENT

From such as the foregoing and other experiences with the elusive appendix vermiformis, I approach the border-line cases with extreme caution and respect. And as Deaver has aptly remarked, "We must be able to recognize the surgical abdomen, and then when we are in it we can look for the trouble. So, mindful of the possibilities in this present instance, my pre-operative diagnosis was, undescended

right testicle with strangulation of the cord and possible ruptured appendix.

Upon operation, at the Providence Hospital, I found the testicle and cord in the right inguinal canal strangulated from pressure, owing to rigidity of the abdominal musculature. The gland and its structures were freed, and fixed in the scrotum. Then followed an exploratory laparotomy. Much free pus escaped on penetrating the peritoneal cavity, and an adherent, sloughing, ruptured, retrocecal appendix was identified, but left undisturbed. A cigaret drain and a soft rubber glove were carried down to the appendix and into the pelvis for drainage. His respirations were rapid and shallow throughout the operations, which were executed under ether anesthesia.

RECOVERY NOT UNEVENTFUL

The progress was uneventful until the fourteenth day, when the temperature rose to 101, with a leukocyte count of 22,000. There was abdominal distension, with the wound not draining much, and no results from the enemas. Next day the patient was running a septic temperature. On probing the wound, with the gloved finger, pus welled up, and a cigaret drain was inserted. Two days later—the seventeenth day—the patient had a scarlet rash on the neck, chest, back, and limbs. Isolation. Six days later, drain removed. General condition now appears normal. May sit up with back-rest support. May 26 recovery and home, following which he showed marked mental improvement, with a notable development in the right testis.

CONCLUSIONS

In concluding, I wish to emphasize:

1. The necessity of a diligent and timely search for an appendiceal focus in a patient presenting atypical abdominal symptomatology involving structures other than the vermiform appendix.

2. The advisability of early operative measures when indicated, as in the cases above cited. For, had this undescended gland been given the advantages of timely operation, the early mental growth of this patient would have been enhanced. Thus, would have this grave complication—perforative appendicitis—been recognized early and avoided ere it had gone on to suppuration and perforation, thereby greatly minimizing the hazards to life and health.

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Adiposis Dolorosa, 300 B. C. — Leroy Crummer, Omaha (Journal A. M. A.), publishes pictures of a terra cotta grotesque of a case of adiposis dolorosa that he believes dates back to 300 B. C. He is convinced that it is a votive offering. These votive offerings afford evidence concerning the peculiar mixture of belief and superstition, and of dependence, which is always the determining factor in the relationship between physician and patient. This figure is of a period when the classical style in modeling had yielded to a more naturalistic form. The donorium illustrated here was found at Athens in the excavations of 1914, and has been ascribed to the third century before Christ. It is a pure terra cotta, is polychrome, and stands 12 cm. high. It is a perfectly typical reproduction of a case of adiposis dolorosa. Crummer assumes that this effigy was made and sent in the form of a petition to the gods of health rather than as an expression of thankfulness for relief of the symptoms. A similar clinical case is cited to bring to mind the motivation for the modeling of this old grotesque.

DIAGNOSIS AND TREATMENT OF CHRONIC ETHMOIDAL CONDITIONS *

By HARVARD McNAUGHT, San Francisco

The diagnosis of chronic inflammatory conditions of the ethmoidal labyrinth is, I believe, more frequently overlooked than that of any other sinus, with the possible exception of the sphenoid, and this must serve as my apology for presenting the subject to you. There are many reasons for this, apart from lack of knowledge. Chief among these are:

First. It may require several examinations and a prolonged period of observation to establish the diagnosis in some cases, and many men are not willing to devote their time.

Second. Some men practicing our specialty have never developed the faculty of observing minute changes from the normal, and this is frequently a sine qua non in ascertaining the condition of this field.

Third. That the diagnosis of some conditions depends almost entirely on the associated symptoms or systemic reactions, and not on macroscopic changes in the nose.

In order to systematize the discussion of this subject, it may be well to consider the inflammatory processes in the ethmoid labyrinth under two heads:

1. Chronic Catarrhal Inflammation (Hyperplastic Ethmoiditis).

2. Chronic Suppurative Inflammation (Empyema).

CHRONIC CATARRHAL CONDITION

On examination, the nose may show nothing pathological in the ethmoid region except, perhaps, a hypertrophy of the middle turbinate. There is frequently a deflected septum, for this is usually the starting point for chronic sinus infections. The patient, however, gives a history of very frequent coryzas, possibly frequent headaches in the region of the nasal base, above and below the eyes, often radiating to the temples. The headaches are not constant. The pain is often severe enough to resemble an idiopathic neuralgia. There is a feeling of fullness in the upper part of the nose, and not infrequently the patient complains of pressure within the eyes. A unilateral granular pharyngitis in one-sided ethmoiditis is frequently present, which is bilateral when both sides are affected. This is due to the irritating post-nasal discharge, and affects the chain of glands behind the posterior pillars. This discharge is characteristic, being of a pale straw color, thin, and watery. It is often irritating to the skin, and may become purulent during acute exacerbations. Other symptoms in the absence of other known factors should lead us to suspect ethmoids. Among these are scotoma, retro-bulbar neuritis, irido-cyclitis, iritis, neuralgic pains in the bulb, ciliary neuralgia, photophobia, hyperaema of the conjunctiva, edema of the eyelids, and periorbital tissues. Asthma is the most common bronchial affection occurring with hyperplastic ethmoiditis, and in

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